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ABSTRACT

This model for evaluating the professional activities of university professors is based on: (1) a systematic process for reporting their activities; and (2) discrepancy evaluation--the comparison of goals and objectives with outcomes. The model assesses a professor's activity in ten categories--teaching; student evaluations; research, creative ability, and scholarship; teaching/research; public service; intra-university activity; extra-university activity; administration; advisee evaluations; and test question evaluations. The evaluation involves 10 basic steps: (1) the professor allocates to the 10 categories the percent of effort he sets as his goal for the coming semester or year; (2) the professor completes the goals and objectives for all categories; (3) the department chairman evaluates the effort allocation and goal intent statements; (4) if discrepancies are noted in step 3, the chairman and professor eliminate or reduce them; (5) the Overall Evaluation Form is completed by the professor and then by his chairman; (6) during the year or semester, the student evaluation form is administered to all the professor's students, the professor submits samples of his tests, and evaluation forms are sent to his advisees; (7) after the year or semester, the professor completes the "description of activities and processes"; (8) the professor then completes the "accomplishment" section, the "products and accomplishments" section of each category, and a self evaluation; (9) the chairman evaluates the discrepancies between goals and accomplishments; (10) on subsequent cycles through the system, the professor tries to reduce discrepancies. (For related documents, see TM 003 217-218.) (KM)

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DISCREPANCY EVALUATION ---

A SYSTEM OF REPORTING, MEASURING, AND EVALUATING THE ACTIVITIES OF THE UNIVERSITY PROFESSOR

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TM 003 216

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LARAMIE, WYOMING

ED 081855

A DISCREPANCY EVALUATION SYSTEM

FOR UNIVERSITY PROFESSORS

1973

Paul Geisert

University of Wyoming

This is the evaluation folder of

_____

This folder covers the time period of

_____

May the information herein be used in the true spirit of evaluation; as data for intelligent and enlightened change.

pg

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A Discrepancy Evaluation System for University Professors

The evaluation of the professional life of a university professor is a difficult task, even for a trained evaluator. The problem is compounded for the department head or dean of a college, when this person has no formal training or background in the field of evaluation. In practice, the difficulty in describing and evaluating the professor has led to evaluation procedures which rely on student evaluations, intuitive feelings on the part of department chairmen and deans, and the unsystematic recording of "professional accomplishments" during the evaluation procedure. This work is an attempt to place the assessment procedure on a systematic basis for the reporting, measurement, and evaluation of the activities of the university professor.

This evaluation model rests on a foundation of two basic ideas. First, the model attempts to implement a systematic process for reporting the activities of university professors. This feature of the model has been drawn from the work, Systems for Measuring and Reporting the Resources and Activities of Colleges and Universities published by the National Science Foundation (Henle, 1967). This paper presents a rationale for identifying and describing academic and professional personnel, describes the concept of the "full professional life," and details the activities measurement data required to describe the university professor.

The second major concept utilized in the development of this evaluation model is that of "discrepancy evaluation" (Provus, 1971; Geisert,

1972). Discrepancy evaluation compares the goals and objectives of a system (or professor) with the outcomes of the system. In other words, discrepancy evaluation compares intents with accomplishments. The two requirements of a discrepancy evaluation system are a definitive statement of goals and objectives, and some method of reporting and measuring outcomes. In the case of a professor, discrepancy evaluation compares the goals of the professor with his accomplishments. This comparison procedure yields "discrepancies" between intents and outcomes, and these discrepancies are then utilized as data for decision making. In addition, discrepancies between the goals of the professor and the goals of the institution can be noted and negotiated (for example, a conflict between the professor who has strong "teaching goals" and the dean who wishes him to have strong "research goals").

Discrepancy evaluation allows great flexibility in that the professor is allowed (in fact encouraged) to set his own professional goals. He is then expected to "live up to" his own goals, and provide data that he has reached his goals. A discrepancy between goals and outcomes indicates that some change must be instituted in the activities of the professor. A continuing discrepancy indicates that either the goals of the professor are not compatible with the needs of the institution, or the professor needs systematic help in reaching his goals (for example, a low student rating may call for helping the professor to learn some new approaches to instruction).

This evaluation model assesses the activity of the professor in ten basic categories. These categories do not exhaust the possibilities for evaluation, but they probably do represent the most important areas of concern. The evaluation areas are:

Teaching

Student Evaluations

Research, Creative Activity, and Scholarship

Teaching/Research

Public Service

Intra-University Activity

Extra-University Activity

Administration

Advisee Evaluations

Test Question Evaluations

The following section provides operational definitions for each of the evaluation areas.

Teaching. Instruction of students in formal courses and supervised study. The activity envisioned here is the total activity of teaching, not simply the actual contact in the classroom, laboratory, or study. It includes directly preparatory activities, such as preparation for class and lecture, the setting-up of demonstrations, and preparation for laboratory experiments. It includes all interaction with students in relation to their instruction, such as academic counseling and special review or coaching, and all forms of evaluation, such as correcting papers and determining grades.

Student evaluations. The research is clear that student evaluations are a necessary and valuable portion of the evaluation process of university professors. In a survey of all of the research performed on this area, the general conclusion was reached:

> A review of empirical studies indicates that student ratings can provide reliable and valid information on the quality of courses and instruction. Such information can be of use to academic departments in constructing normative data for the evaluation of teaching and may aid the individual instructor in improving his teaching effectiveness.
>
> ...if teaching performance is to be evaluated, either for purposes of pay and promotion or for individual improvement, a systematic measure of student attitudes, opinions, and observations can hardly be ignored. The data which have been reviewed strongly suggest that the use of formal student ratings provides a reasonable way of measuring student reaction (Costin, F., Greenough, W. T., & Menges, R. J., Student ratings of college teaching: reliability, validity, and usefulness. Review of Educational Research, Vol. 41, No. 5, 1971).

The evaluation used in this model is the standard University of Wyoming Student Evaluation Form. This category could be improved through the utilization of a form prepared by professional evaluators.

Research. Methodical study and activity carried on in order to augment and develop knowledge in any field. The definition should be read in its broadest possible meaning, and should include the areas of basic research, applied research, and developmental activities.

Teaching/Research. This term is used to designate that kind of research activity which is carried on with one or more apprentice researchers for whom this research involvement is part of their formal educational program and for whom, therefore, the principal investigator plays the role not only of "research administrator" but of preceptor as well. "Teaching/Research" is used, therefore, to distinguish the kind of research just defined from that research activity in which co-workers and subordinate participants are employed not for their own education but simply to assist in carrying out the research. It does not include formal instruction about research, i.e., courses in research methodology, which would be strictly a teaching function.

Public Service. This includes direct and indirect service to public schools, educational agencies, state department of education, educational consultant activities, in-service courses, and services to the community, state, and the public of this and other countries.

Intra-University Activities. All other activities by which one makes one's skills and resources available to other persons or organizations within the university for university purposes (exclusive of activities reported in previous categories).

Extra-University Activities. All activities directed to persons, agencies, and other organizations outside the university which are not primarily public service activities. The main activity here is consultation for profit-making organizations in business and industry.

Administration. The coordination and direction of others in regard to the formulation of policy, decision-making, and its implementation.

Advisee Evaluations. This area is parallel to student evaluations, except it evaluates the activities of the professor in regards to his relationships to his student advisees.

Test Question Evaluations. Since test questions are the main source of information to the student concerning the goals of a professor for his course (if they are not supplied as explicit, written goal and objective statements), an evaluation of test questions provides a valuable source of data concerning the teaching area.

Performing the Evaluation

This evaluation involves 10 basic steps.

Step 1. The professor is to allocate to the various categories of the evaluation the percent of effort he would like to set as his goal for the coming academic year (or semester) (use the Professional

Distribution of Effort Form, page 11). This distribution should represent a "goal" more than a "description" of his effort, since the allocations represent his expectations for the future.

Step 2. The professor completes the statements of "goals and objectives" for all categories in the evaluation. He determines his goals for each area, being as explicit as possible. There is some research which indicates that the successful self-actualized person is one who can set for himself rather carefully stated behavioral goals.

It is not easy to state goals, nor is there a good body of literature that can "teach" you how to state good goals. There are a couple of short books on how to write and analyze goals and objectives, but all of these relate directly to one category, teaching. These books are very valuable in this area, and there is a great deal of information in them you can transfer to the writing of goals in other areas. The books are:

Preparing Instructional Objectives, Robert Mager, Fearon Press, 1962, $1.75.

Goal Analysis, Robert Mager, Fearon Press, 1972, $2.95.

Developing Attitudes Toward Learning, Robert Mager, Fearon Press, 1968, $2.00

Of course, some categories will have extensive goal statements, and some will have no goal statements, but in total, the statements should be a complete description of professional intent.

Step 3. The department chairman evaluates the effort allocation and goal intent statements to determine any discrepancies between the professor's goals and the department's or college's goals.

Step 4. If discrepancies are noted in Step 3, negotiations are undertaken by the chairman and the professor to eliminate or reduce discrepancies. This part of the evaluation parallels the drawing up of a contract, and the negotiations continue until both parties feel the goals represent the best interests of the university and the professor. In this manner, accurate expectations can be established in both parties as to the allocation of professional effort and disagreements (i.e., as to the teaching versus research allocation) can be settled prior to final evaluation for promotion, tenure, or raises.

Step 5. The Overall Evaluation Form (page 24) is completed first by the professor and then by his chairman.

Step 6. During the course of the academic year (or semester) the standard University Student Evaluation Form will be administered to all the professor's students, the professor will be asked to submit samples of his tests for analysis by an objective evaluator, and evaluation forms will be sent to his advisees. It is assumed that the resource of a professional evaluator will be available for test evaluation (perhaps through a university instructional center). If this is not the case, either this portion of the evaluation will have to be bypassed, or a consultant will have to be employed to fill this role. These data are compiled and placed in the professor's evaluation folder (Student Evaluation Form, page 13, Advisee Evaluation Form, page 20, and Test Evaluation Form, page 21).

Step 7. After a suitable period of professional activity (one academic year or semester), the professor completes the "description of

activities and processes" section of each category. This section is directly parallel to the "goal and objectives" section, and the professor should provide data whether or not he has reached the goals he set for himself earlier in the year.

Step 8. The professor then completes the "accomplishment" section of the Professional Distribution of Efforts Form, the "products and accomplishments" section of each category, and his self-evaluation of his performance on the Overall Evaluation Form.

Step 9. The department chairman evaluates the discrepancies between the professor's goal intent and goal accomplishments. In doing this, he utilizes the professor's comments under "goals and objectives" and evidences he has supplied under "products and accomplishments." On the basis of the data supplied by the professor, the chairman makes comments and summarizes his feelings on the Overall Evaluation Form.

If a department chairman wishes to enter adverse comments into the evaluation at this time, he is responsible for documenting and providing data which supports his conclusions. Just as the professor is responsible for demonstrating through the use of data that he has reached his goals, the department chairman is responsible for using data to demonstrate where the professor has failed in his professional responsibilities.

The chairman then presents his summary to the professor and the total assessment is discussed. The chairman then submits the final evaluation to the dean, who uses all the data to complete his section on the Overall Evaluation Form. If the dean wishes to enter adverse comments into the evaluation, he also is respon-

sible to document and provide data which supports his conclusions.

Step 10. On subsequent cycles through the system, the professor attempts to reduce any discrepancies between his goals and the department's goals, and between his goal intents and accomplishments.

This evaluation will also illuminate the goals of the department, and should distinct discrepancies appear between professors' goals and department goals, it is clear that in some cases the discrepancy should be reduced by a revision of the department's goals rather than professors' goals.

It should be noted that a discrepancy evaluation procedure is not performed to label a professor as "good or bad" but rather is used to determine when the professor is failing to reach his own goals. In this manner, evaluation provides the feedback necessary to implement procedures to remedy deficiencies. For example, should a professor receive low student ratings, this evaluation provides feedback that the professor needs help with his instructional procedures. Instead of "letting the professor go" for poor student evaluations, a "Center for the Development of University Instruction" could be employed to diagnose and remedy teaching deficiencies. This concept is not a new one, and such campus centers are presently upgrading instruction at numerous universities. With the feedback provided by this evaluation, perhaps university professors will welcome the assistance of a center to provide help in the achievement of their professional goals.

EVALUATION FORMS

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PROFESSIONAL DISTRIBUTION OF EFFORTS

	INTENT	ACCOMPLISHMENT
TEACHING	%	%
RESEARCH, CREATIVE ACTIVITY, AND SCHOLARSHIP	%	%
TEACHING/RESEARCH	%	%
PUBLIC SERVICE	%	%
INTRA-UNIVERSITY ACTIVITY	%	%
EXTRA-UNIVERSITY ACTIVITY	%	%
ADMINISTRATION	%	%
	100%	100%

TEACHING

General Areas Covered

1. Academic counseling (advisees)
2. Special preparations, demonstrations, etc.
3. Preparation of special or innovative programs
4. Development of a new course, or revision of an old course

TEACHING--GOALS AND OBJECTIVES

TEACHING--ACTIVITIES AND PROCESSES (courses taught, hours spent, level of program, type of instruction, number of students, term, number of TA's, etc.)

TEACHING--PRODUCTS AND ACCOMPLISHMENTS

STUDENT EVALUATION

DESCRIPTION OF ACTIVITIES

Courses evaluated	Date	Number of Students

STUDENT EVALUATION GOALS		
GOALS AND OBJECTIVES		ACCOMPLISH-MENTS AND PRODUCTS
ITEM	"IDEAL" AVERAGE RESPONSE	AVERAGE RESPONSE
THE GOALS AND OBJECTIVES AND ACCOMPLISH-MENTS FOR THIS AREA WILL DEPEND ON THE EVALUATION FORM WHICH IS USED.		
	____	____
	____	____
	____	____
	____	____
	____	____
	____	____
	____	____
	____	____
	____	____
	____	____

RESEARCH, CREATIVE ACTIVITY, AND SCHOLARSHIP

General Areas Covered

1. Describe your research program
   A. Type (applied, pure, developmental)
   B. Sponsorship (university, federal, state, private, industry, individual, other)
   C. Area of study
2. Published articles (titles, date of publication, journal)
3. Completed books (titles, co-authors, publisher, number of pages, date of publication)
4. Inventions
5. Works in progress
6. Membership in learned and professional societies
   A. Names
   B. Offices held (date)
   C. Papers read
7. Other

RESEARCH, CREATIVE ACTIVITY, AND SCHOLARSHIP--GOALS AND OBJECTIVES

RESEARCH, CREATIVE ACTIVITY, AND SCHOLARSHIP--ACTIVITIES AND PROCESSES

RESEARCH, CREATIVE ACTIVITY, AND SCHOLARSHIP--PRODUCTS AND ACCOMPLISHMENTS

TEACHING/RESEARCH

General Areas Covered

1. Type of research, number of students involved
2. Thesis direction
3. Teaching/research outcomes, articles published, thesis completed, etc.

TEACHING/RESEARCH--GOALS AND OBJECTIVES

TEACHING/RESEARCH--ACTIVITIES AND PROCESSES

TEACHING/RESEARCH--PRODUCTS AND ACCOMPLISHMENTS

PUBLIC SERVICE

General Areas Covered

1. Consulting (that which services public interest)
2. Service on governmental committees
3. Service on community committees
4. Editing professional journals
5. Participating in accrediting procedures
6. Talks given
7. Judging contests and competitions
8. Inter-university relations
9. Service to public schools
10. Educational agencies
11. State Department of Education
12. Others

PUBLIC SERVICE--GOALS AND OBJECTIVES

PUBLIC SERVICE--ACTIVITIES AND PROCESSES

PUBLIC SERVICE--PRODUCTS AND ACCOMPLISHMENTS

INTRA-UNIVERSITY

General Areas Covered

1. Working with student groups in an advisory or supervisory capacity
2. Working on university boards and committees
3. Student counseling (other than related to teaching)
4. University staff activity
5. University fund-raising
6. University public relations
7. Other

INTRA-UNIVERSITY--GOALS AND OBJECTIVES

INTRA-UNIVERSITY--ACTIVITIES AND PROCESSES

INTRA-UNIVERSITY--PRODUCTS AND ACCOMPLISHMENTS

EXTRA-UNIVERSITY

General Areas Covered

1. Consulting (for profit-making organizations)
2. Other

EXTRA-UNIVERSITY--GOALS AND OBJECTIVES

EXTRA-UNIVERSITY--ACTIVITIES AND PROCESSES

EXTRA-UNIVERSITY--PRODUCTS AND ACCOMPLISHMENTS

ADMINISTRATION

General Areas Covered

1. General
2. Academic
3. Research
4. Creative activity
5. Supporting services
6. Other

ADMINISTRATION--GOALS AND OBJECTIVES

ADMINISTRATION--ACTIVITIES AND PROCESSES

ADMINISTRATION--PRODUCTS AND ACCOMPLISHMENTS

ADVISEE EVALUATION

DESCRIPTION OF ACTIVITIES

Types of Advisees	Number of Advisees

ADVISEE EVALUATION GOALS

GOALS AND OBJECTIVES		ACCOMPLISHMENTS AND PRODUCTS
ITEM	"IDEAL" AVERAGE RESPONSE	AVERAGE RESPONSE
THE GOALS AND OBJECTIVES AND ACCOMPLISHMENTS FOR THIS AREA WILL DEPEND ON THE EVALUATION FORM WHICH IS USED.		
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

TEST EVALUATION

DESCRIPTION OF TESTS EVALUATED

COURSES	TEST SUBMITTED

TEST EVALUATION GOALS	
GOALS AND OBJECTIVES	ACCOMPLISHMENTS AND PRODUCTS

TEST EVALUATION

Name of course test is used in.

Teaching method employed.

Type of test submitted (weekly quiz, mid-term, final, etc.)

% of final grade represented by this test.

Distribution of raw scores on the test.

Distribution of grades awarded on the test.

Explain how these questions were chosen.

Explain how the results of the test were used.

Explain how the test related to the goals of your course.

Explain how the grade distribution was determined.

Remember to attach a copy of the test to this form.

TEST EVALUATION

ANALYSIS

Type of questions:

Level of questions

- Knowledge--recall
- Application
- Analysis
- Synthesis
- Evaluation or Problem Solving

Errors

- In stem of question
- In responses of question
- Ambiguity level

GENERAL IMPRESSIONS

Grade distributions

Relationship of test to course goals

OVERALL EVALUATION

_____OUTSTANDING
_____VERY SATISFACTORY
_____SATISFACTORY
_____IMPROVEMENT NEEDED
_____UNSATISFACTORY

OVERALL EVALUATION

AREA	SELF-EVALUATION					CHAIRMAN EVALUATION					DEAN EVALUATION				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
TEACHING															
STUDENT EVAL.															
RESEARCH															
TEACHING/RESEARCH															
PUBLIC SERVICE															
INTRA-UNIVERSITY															
EXTRA-UNIVERSITY															
ADMINISTRATION															
ADVISEE EVAL.															
TEST QUESTION EVAL.															
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

Place an "I" in the appropriate place for an evaluation of Goal Intent.

Place an "A" in the appropriate place for an evaluation of Goal Accomplishment.

Place an "NA" where item is not applicable

1 OUTSTANDING

2 VERY SATISFACTORY

3 SATISFACTORY

4 IMPROVEMENT NEEDED

5 UNSATISFACTORY

Department Chairman -- General Comments

Professor -- General Comments

Dean -- General Comments

REFERENCES

Geisert, P. G. A self renewal model for educational systems, Laramie, Wyoming: The Center for Research, Service and Publication, University of Wyoming, 1972.

Henle, R. J. Systems for measuring and reporting the resources and activities of colleges and universities, Washington, D.C.: National Science Foundation, NSF 67-15, 1967.

Mager, Robert. Preparing instructional objectives, Palo Alto, California: Fearon Press, 1962.

Mager, Robert. Developing attitudes toward learning, Palo Alto, California: Fearon Press, 1968.

Mager, Robert. Goal analysis, Palo Alto, California: Fearon Press, 1972.

Provus, Malcolm. Discrepancy evaluation for educational program improvement and assessment, Berkeley: McCutchan Publishing Corporation, 1971.